=> d l4 1-11 abs,bib

L4 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN
AB Novel three-dimensional (3D) hierarchical nanoarchitectures of ε-MnO2 have been synthesized by a simple chemical route without the addition of any surfactants or organic templates. The self-organized crystals consist of a major ε-MnO2 dipyramidal single crystal axis and six secondary branches, which are arrays of single-crystal ε-MnO2 nanobelts. The growth directions of the nanobelts are perpendicular to the central dipyramidal axis, which shows sixfold symmetry. The shape of the ε-MnO2 assembly can be controlled by the reaction temperature The morphol. of ε-MnO2 changes from a six-branched star-like shape to a hexagonal dipyramidal morphol. when the temperature is increased from 160 to 180°C. A possible growth mechanism is proposed. The synthesized ε-MnO2 shows both semiconducting and magnetic properties. These materials exhibit ferromagnetic behavior below 25 K and paramagnetic behavior above 25 K. The ε-MnO2 system may have potential applications in areas such as fabrication of nanoscale spintronic materials, catalysis, and sensors.
AN 2006:270788 HCAPLUS
DN 145:251620
TI Hydrothermal growth of manganese dioxide into three-dimensional hierarchical nanoarchitectures
AU Ding, Yun-Shuang; Shen, Xiong-Fei; Gomez, Sinue; Luo, Hong; Aindow, Mark; Suib, Steven L.
CS Institute of Materials Science, University of Connecticut, Storrs, CT, 06269, USA
SO Advanced Functional Materials (2006), 16(4), 549-555
CODEN: AFMDC6; ISSN: 1616-301X
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN
AB Quartz crystals synthesized hydrothermally above the high-low transition temperature showed various hexagonal dipyramidal morphologies mostly with and rarely without prism faces, which are sometimes curved leading to a spindle-shape. The development of prism faces is distinctly different from simple hexagonal dipyramidal morphol. without prism faces commonly exhibited by natural high quartz crystals. Thus the hitherto believed representative morphol. of natural high quartz is a habit appearing when high quartz crystals grew in silicate systems.
AN 1995:751623 HCAPLUS
DN 123:156799
OREF 123:27675a,27678a
TI Growth and morphology of quartz crystals synthesized above the transition temperature
AU Hosaka, Masahiro; Miyata, Takeshi; Sunagawa, Ichiro
CS Yamanashi Institute of Gemmology and Jewelry Arts, Tokoji-machi 1955-1, Kofu, 400, Japan
SO Journal of Crystal Growth (1995), 152(4), 300-6
CODEN: JCRGAE; ISSN: 0022-0248
PB North-Holland
DT Journal
LA English

L4 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN
AB Prismatic crystals of jeremejevite (jv) [12322-87-1] are described from granitic pegmatites, in southwestern Pamirs, developed in contact with garnet-biotite banded gneisses. Crystals of jv, with a hexagonal and hexagonal-dipyramidal habit, are associated with apatite, schorl, biotite, lepidolite, beryl, etc. The d. 3.26 g/cm3, hardness 1251 N/mm2, ns $\gamma$ = 1.646 and $\alpha$ = 1.637, birefringence 0.009, and 2V = <44° of jv were determined The unit-cell parameters are a 8.544 and c 8.159 Å; c/a = 1:1.047, and cell volume 515.80 Å3. Data show that jv crystallized from low-temperature hydrothermal solns. of high alkalinity, during the terminal stages of pegmatite-forming processes. The jv formation was related to excess amts. of K, Al, and B in residual pegmatitic fluids.
AN 1983:425566 HCAPLUS
DN 99:25566
OREF 99:4081a,4084a
TI Jeremejevite as a mineral recently found in the USSR
AU Konovalenko, S. I.; Rossovskii, L. N.; Anan'ev, S. A.
CS Krasnoyarsk. Otd., Sib. Nauchno-Issled. Inst. Geol., Geofiz. Mineral. Syr'ya, Krasnoyarsk, USSR
SO Zapiski Vsesoyuznogo Mineralogicheskogo Obshchestva (1983), 112(2), 212-17
CODEN: ZVMOAG; ISSN: 0044-1805
DT Journal
LA Russian

L4 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN
AB Hexagonal, dipyramidal-prismatic, and isometric crystals of apatite [64476-38-6] from the title rocks have ns $\omega$ = 1.640-1.651 and $\varepsilon$ = 1.635-1.646; chemical, these apatites are fluorapatites. Quant. estns. were made of La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tu, Yb, Lu, and Y. The heavy lanthanides are conspicuously absent.
AN 1979:560516 HCAPLUS
DN 91:160516
OREF 91:25871a,25874a
TI Rare earth elements and yttrium in accessory apatite of basic and ultrabasic rocks of the Voronezh crystalline massif
AU Plaksenko, A. N.
CS Voronezh. Gos. Univ., Voronezh, USSR
SO Geokhimiya (1979), (8), 1254-8
CODEN: GEOKAQ; ISSN: 0016-7525
DT Journal
LA Russian

L4 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN
AB The hardness of hematite from the Korushnovsk, Shabarovsk, Olenogorsk, and the Krivoi-Rog ore deposits were determined on the pinacoidal (0001), rhombohedral (10.hivin.11), and hexagonal dipyramidal (22.hivin.43) faces; the average values for these 3 faces were, 1176, 1269, and 1290 kg/mm2, resp. Wide variations in the hardness of hematite are attributed to differences in crystal morphol.
AN 1975:430791 HCAPLUS
DN 83:30791
OREF 83:4917a,4920a
TI Anisotropy of the hardness of hematite
AU Petrova, L. V.; Domnina, L. I.
CS "Mekhanobr", Leningrad, USSR
SO Zapiski Vsesoyuznogo Mineralogicheskogo Obshchestva (1975), 104(1), 84-5
CODEN: ZVMOAG; ISSN: 0044-1805
DT Journal
LA Russian

L4 ANSWER 6 OF 11 INSPEC (C) 2008 IET on STN
AN 2006:8933879 INSPEC
AB Novel three-dimensional (3D) hierarchical nanoarchitectures of X220A-MnO2 have been synthesized by a simple chemical route without the addition of any surfactants or organic templates. The self-organized crystals consist of a major X220A-MnO2 dipyramidal single crystal axis and six secondary branches, which are arrays of single-crystal X220A-MnO2 nanobelts. The growth directions of the nanobelts are perpendicular to the central dipyramidal axis, which shows sixfold symmetry. The shape of the X220A-MnO2 assembly can be controlled by the reaction temperature. The morphology of X220A-MnO2 changes from a six-branched star-like shape to a hexagonal dipyramidal morphology when the temperature is increased from 160 to 180°C. A possible growth mechanism is proposed. The synthesized X220A-MnO2 shows both semiconducting and magnetic properties. These materials exhibit ferromagnetic behavior below 25 K and paramagnetic behavior above 25 K. The X220A-MnO2 system may have potential applications in areas such as fabrication of nanoscale spintronic materials, catalysis, and sensors
AN 2006:8933879 INSPEC
TI Hydrothermal growth of manganese dioxide into three-dimensional hierarchical nanoarchitectures
AU Yun-Shuang Ding; Xiong-Fei Shen; Gomez, S.; Hong Luo; Aindow, M.; Suib, S.L. (Inst. of Mater. Sci., Connecticut Univ., Storrs, CT, USA)
SO Advanced Functional Materials (3 March 2006), vol.16, no.4, p. 549-55, 31 refs.
CODEN: AFMDC6, ISSN: 1616-301X
SICI: 1616-301X(20060303)16:4L.549:HGMD;1-X
Published by: Wiley-VCH, Germany
DT Journal
TC Experimental
CY Germany
LA English

L4 ANSWER 7 OF 11 INSPEC (C) 2008 IET on STN
AN 1995:5054090 INSPEC DN A1995-20-8110D-010
AB Quartz crystals synthesized hydrothermally above the high-low transition temperature showed various hexagonal dipyramidal morphologies mostly with and rarely without prism faces, which are sometimes curved leading to a spindle-shape. The development of prism faces is distinctly different from simple hexagonal dipyramidal morphology without prism faces commonly exhibited by natural high quartz crystals. Thus the hitherto believed representative morphology of natural high quartz is a habit appearing when high quartz crystals grew in silicate systems
AN 1995:5054090 INSPEC DN A1995-20-8110D-010
TI Growth and morphology of quartz crystals synthesized above the transition temperature
AU Hosaka, M.; Miyata, T.; Sunagawa, I. (Inst. of Gemmology & Jewelry Arts, Yamanashi Univ., Kofu, Japan)
SO Journal of Crystal Growth (July 1995), vol.152, no.4, p. 300-6, 9 refs.
CODEN: JCRGAE, ISSN: 0022-0248
Price: 0022-0248/95/$09.50
DT Journal
TC Experimental
CY Netherlands
LA English

L4 ANSWER 8 OF 11 INSPEC (C) 2008 IET on STN
AN 1989:3447361 INSPEC DN A1989-111197

AB Section Z of Meishan in Changxing of Zhejiang, known as the stratotype section of the Permian-Triassic boundary in South China, is also one of the candidate stratotype sections of the same boundary in the world. Here the strata crossing the Permian-Triassic boundary are well exposed. The Upper Permian Changhsingian is composed of limestones intercalated with thin-bedded claystone, while the lowermost part of the Lower Triassic is represented by mudstone, marl and clay. Recently, the writers first discovered a great number of quartz grains with hexagonal dipyramidal crystal form which is characteristic of high β-quartz in mixed Beds 1-3 of the uppermost part of Upper Permian and the lower-most part of Lower Triassic. High β-quartz always occurs in acidic volcanic rocks. Accordingly, the present discovery has not only revealed the influence of volcanic eruptions in the Changxing area during the late Late Permian and the early Early Triassic, but also provided new valuable data for the study of the event stratigraphy of the Permian-Triassic boundary
AN 1989:3447361 INSPEC DN A1989-111197
TI Discovery of paramorph of high-quartz in the stratotype section of the Permian-Triassic boundary at Meishan of Changxing, Zhejiang, and its significance
AU He Jin-Wen; (Nanjing Inst. of Geol. & Paleontology, Acad. Sinica, China), Chai Zhi-Fang; Ma Shu-Lan
SO Chinese Science Bulletin (March 1989), vol.34, no.6, p. 474-7, 2 refs.ISSN: 0250-7862
DT Journal
TC Experimental
CY China
LA English

L4 ANSWER 9 OF 11 INSPEC (C) 2008 IET on STN
AN 1983:1962525 INSPEC DN A1983-003735
AB By spontaneous crystallization from solution in a fluoride melt with slow fall of temperature the authors have obtained single crystals of oxygermanate-apatites (OGA) with the compositions Sr2Ln8Ge6O26, where Ln=La, Nd, Sm, Eu, Gd, or Dy. Chemical analyses of samples revealed that there is no deviation from stoichiometry during growth. The resulting single crystals are transparent, have a hexagonal-dipyramidal habit, and measure up to 20 mm along the hexagonal axis and up to 3 mm in cross section
AN 1983:1962525 INSPEC DN A1983-003735
TI Some properties of single crystals of oxygermanate-apatites
AU Fedorov, N.F.; Andreev, I.F.; Lukashov, I.L. (Technol. Inst., Leningrad, USSR)
SO Soviet Physics - Crystallography (March 1982), vol.27, no.2, p. 231, 5 refs.
CODEN: SPHCA6, ISSN: 0038-5638
Translation of: Kristallografiya (March 1982), vol.27, no.2, p. 384
CODEN: KRISAJ, ISSN: 0023-4761
DT Journal; Translation Abstracted
TC Experimental
CY United States; USSR
LA English

L4 ANSWER 10 OF 11 USPATFULL on STN
AB A corundum crystal formed body having a corundum crystal grown directly on a base material and a production process capable of producing the corundum crystal formed body easily at low costs. The a corundum crystal formed body has a platinum base material and a corundum crystal portion formed on the platinum base material. Further, the process for producing a corundum crystal formed body, involves forming a corundum

crystal is formed on a platinum base material by a flux evaporation method of heating a sample containing a raw material and a flux to precipitate a crystal. The crystal is grown by use of flux evaporation as a driving force.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2007:161383 USPATFULL
TI Corundum crystal formed body
IN Teshima, Katsuya, Tokyo, JAPAN
PI US 20070140936 A1 20070621
AI US 2005-589546 A1 20050217 (10)
WO 2005-JP2496 20050217
20060816 PCT 371 date
PRAI JP 2004-41834 20040218
DT Utility
FS APPLICATION
LREP LADAS & PARRY LLP, 224 SOUTH MICHIGAN AVENUE, SUITE 1600, CHICAGO, IL, 60604, US
CLMN Number of Claims: 21
ECL Exemplary Claim: 1-15
DRWN 4 Drawing Page(s)
LN.CNT 1088
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 11 OF 11 USPATFULL on STN
AB An artificial corundum crystal which can be put into practical use at low costs, and a process for producing the same. The artificial corundum crystal has at least one crystal face selected from {113}, {012}, {014}, {113}, {110}, {101}, {116}, {211}, {122}, {214}, {100}, {125}, {131}, and {312} faces. The process for producing the artificial corundum crystal is by a flux evaporation method of heating a sample containing a raw material and a flux to precipitate a crystal and grow the crystal by use of flux evaporation as a driving force.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2007:113551 USPATFULL
TI Artificial corundum crystal
IN Teshima, Katsuya, Tokyo-to, JAPAN
Oishi, Shuji, Nagano, JAPAN
PI US 20070098618 A1 20070503
AI US 2004-581182 A1 20041130 (10)
WO 2004-JP17753 20041130
20060601 PCT 371 date
PRAI JP 2003-402115 20030112
JP 2004-20059 20040205
JP 2004-144118 20040503
JP 2004-144124 20040513
JP 2004-144125 20040513
DT Utility
FS APPLICATION
LREP LADAS & PARRY LLP, 224 SOUTH MICHIGAN AVENUE, SUITE 1600, CHICAGO, IL, 60604, US
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN 4 Drawing Page(s)
LN.CNT 1452
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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     (FILE 'HOME' ENTERED AT 14:29:15 ON 05 SEP 2008)

     FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPATOLD, USPAT2' ENTERED AT
     14:40:51 ON 05 SEP 2008
L1      3536151 S (CRYSTAL#)
L2       443126 S (AL2O3 OR CORUMDUM)
L3        51960 S L1 AND L2
L4           11 S L1 AND (HEXAGON?(3W)DIPYRAMIDAL?)
L5       250923 S (COLORLESS OR NO(6A)COLOR?)
L6            2 S L4 AND L5
L7       961124 S (FLUX?)
L8         1337 S L1 AND L2 AND L7
L9            2 S L4 AND L7
L10       20363 S (EVAPORAT?)(8A)(INHIBIT? OR ELIMINAT? OR RID? OR IRRADICAT? O
L11           2 S L8 AND L10
L12           2 S L1 AND L2 AND L7 AND L10

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